The Relationship between Spiritual Intelligence and Attitudes toward Spirituality and Spiritual Care of Nurses: a cross-sectional study

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Abstract

The Relationship between Spiritual Intelligence and Attitudes toward Spirituality and Spiritual Care of Nurses: a cross-sectional study

Background: The present study was conducted to determine the relationship between spiritual intelligence and attitudes toward spirituality and spiritual care of nurses.

Methods: This correlational, cross-sectional study was carried out on 193 nurses (in Iran) that selected using census sampling method. Data were collected using spiritual intelligence self-report inventory (SISRI) designed by King (2008) and spirituality and spiritual care rating scale (SSCRS) developed by McSherry et al., (2002). Then, data were analyzed by descriptive and inferential statistical tests in SPSS software (ver. 16, Chicago, IL, USA).

Results: The results showed that mean ± SD of nurses' spiritual intelligence score (45.83 ± 61.14) was above average and mean score of spirituality and spiritual care (61.45 ± 30.12) was at moderate level. A positive and significant relationship was found between mean spiritual intelligence score and nurses' attitude towards spirituality and spiritual care (r = 0.764, and p < 0.001). According to the results of the regression analysis of the four dimensions of spiritual intelligence, transcendental awareness (beta = 0.471) followed by critical existential thinking (beta = 0.371) were the most important predictors.

Conclusion: According to the research results, there was a significant and positive relationship between spiritual intelligence and attitudes toward spirituality and spiritual care. Therefore, it is necessary to include the training of spiritual intelligence in the nursing curriculum and fostering spiritual awareness and existential awareness through methods such as case studies and workshops should be considered as in-service nursing education.

Background

Considering spiritual dimension of human being from the viewpoint of the scientists, especially the experts of the world health organization (WHO), who have defined humans as a biological, psychological, social, and spiritual being, concepts of spirituality have been introduced and developed(1).

It is necessary to take into account spirituality in order to have a comprehensive and true vision and proper patient care. Spirituality as an excellent nursing component is regarded as basis for nursing activities. From the perspective of holistic nursing, humans are multi-dimensional being and spirituality is the central dimension and has a significant effect on health (2–5). Spiritual care is a type of care that seeks and identifies spiritual existential needs and challenges associated with disease and crisis (6–8). Today, spiritual care is an important part of nursing care. Spiritual care is a multidimensional concept and includes practice and activity in areas, such as respecting and maintaining the patient's privacy and dignity, supporting the cultural and religious beliefs, careful listening to the patient, kindness while interacting with patient, empathy and helping the patient to understand nature of the disease (9–11).
This type of care is introduced as an intrinsic value and a basic and central element to nursing, which is interrelated with nursing education and practice (8, 12). Nursing profession claims to provide holistic care. From the point of view of some nursing theorists, spirituality is an important dimension of holistic nursing and can help to promote patients' health. Helping to meet spiritual needs of the patients and their families is a key element of clinical care. There is a consensus in most of the previous studies on the role of spirituality in recovery and the effect of spirituality on quality of care, power to improve, and also ability to cope and adapt with change, and health and disease-related conditions (13–15).

Spiritual intelligence, as one of spiritual concepts includes a kind of adaptation and problem-solving behavior accounting for the highest levels of development in various areas, i.e., cognitive, moral, emotional, and interpersonal areas(16, 17). This intelligence enables the individual to adapt to surrounding phenomena and achieve internal and external integration and express a set of spiritual abilities and capacities, which in turn help to increase adaptability, problem-solving ability, coping with pressure, and showing calmness and freshness in personal and professional life (17, 18). Spiritual intelligence is the basis of human beliefs that has a positive effect on their performance and increases flexibility in solving problems(19). Spiritual intelligence is essential because of using one's internal resources to increase capacity for attention, tolerance, and adaptability, develop people's perception in job-related relationships, the ability to recognize true meaning of events, identify and regulate personal values, and ensure having a violence-free life in organizations(20).

Review of the literature showed that not only it is considered in individual areas but also it is regarded in organizational areas. Also, it seems that increasing number of research in the field of spirituality may be due to its tangible significant effect on improving individual and organizational performance (14, 21, 22). Additionally, Beni et al., (2019) carried out a study entitled “Roles of Spiritual Intelligence to Improve Quality of Nursing Care: A Systematic Review” and reported that spiritual intelligence could improve nurse's competency, moral performance, and personal meaning about caring(17). The Indonesian study showed that spiritual intelligence was negatively correlated to job burnout and positively correlated with caring behaviors(23). Also, Haryono et al., (2018) reported that nurse's spiritual intelligence had positive and significant effects on organizational commitment (24). In this regard, the concept of spiritual intelligence is also taken into account in nursing profession and the evidence shows that spiritual intelligence is one of the factors influencing nursing care behaviors and clinical competence of nurses(25). Besides, studies have demonstrated that nursing care combined with spirituality improves nursing practice and quality of patient care. This type of care reduces physical pain, depression, anxiety, increases mental relief, speeds up recovery, increases life expectancy, improves quality of life, and deepens the patient-nurse relationship(26, 27).

Although, the approach towards spiritual care is a familiar term in nursing and most nursing models address the concept of spirituality, and spiritual care has been widely recognized as a necessary aspect of clinical care, spiritual dimension is the most neglected dimension in the nursing field, and in practice, adequate attention has not been paid to spiritual care while providing care(28). However, it is not possible to separate spiritual care from care processes, and it is important to address these spiritual concepts in
the nursing profession. Therefore, the present study was done to determine the relationship between spiritual intelligence and nurses’ attitudes towards spirituality and spiritual care considering the approach that, nurses’ ability to provide spiritual care should be increased in clinical setting and it should be regarded as a basis for enhancing quality of patient care and patient's satisfaction.

**Methods**

This correlational, cross-sectional study was conducted in 2020. A total of 222 eligible nurses referred to the Seyed Al-Shohada Hospital in Farsan, (Shahrekord City, Chaharmahal and Bakhtiari Province, Iran) were selected by census sampling method to be included in the study. Inclusion criteria included having at least an associate's degree, having at least one year of working experience in various types of employment including permanent, temporary-to permanent, contractual, conscription, and willingness to participate in the study. Nurses who were not working in the hospital or those who were unwilling to participate in this study were excluded from the research.

Finally, a total of 193 questionnaires were completed. After receiving the letter of introduction from the Islamic Azad University of Shahrekord and referring to the Vice Chancellor for Research and Technology of the Shahrekord University of Medical Sciences, the questionnaires were distributed. This study was performed in line with the principles of the Declaration of Helsinki. Approval was granted by the Ethics Committee of Falavarjan Islamic Azad University (IR.IAU.FALA.REC.1399.040). Prior to the study, the subjects, method, and purpose of the study were explained to the participants by the main author and their consent was obtained. They were also assured that their private and personal information would be kept confidential.

Data collection tools included two standard questionnaires: Kings spiritual intelligence self-report inventory (SISRI-24), consisting of 24 items and four dimensions of critical existential thinking, (questions 1, 3, 5, 9, 13, 17, and 21), personal meaning production (questions 7, 11, 15, 19, and 23), transcendental awareness (questions 2, 6, 10, 14, 18, 20, and 22), and conscious state expansion (questions 4, 8, 12, 16, and 24). This questionnaire is scored based on a 5-point Likert scale (strongly disagree: 1 to strongly agree: 5). The possible score range is between 24–120, with higher scores indicating more spiritual intelligence. A score equal to and higher than the average was considered as optimal spiritual intelligence and non-optimal spiritual intelligence was indicated by scores lower than the average. Validity of this tool has been confirmed in the study done by King and its reliability has been reported to be 0.95 (29). Validity and reliability of this questionnaire have been confirmed in several studies conducted in Iran. Cronbach’s alpha method was used to assess its reliability (α = 0.89)(30).

Spirituality and spiritual care rating scale (SSCRS), as the modified scale developed by Mc Sherry consists of 23 questions on spirituality and spiritual care. The first part of this scale includes 9 items related to spirituality, including hope, meaning, purpose, beliefs, values, relationships, belief in God, ethics, innovation, and self-expression. The second part includes 14 questions on spiritual care. Spirituality and spiritual care rating scale scored based on a 5-point Likert scale (strongly agree = 4 to strongly disagree =
0). The possible score range is between 0–92, with scores ranging between 63–92, 32–62, and 0–31 indicating high and optimal, moderate and somehow optimal, and low and non-optimal spiritual care, respectively (31). This tool has been validated in Iran in a study by Fallahi et al and Cronbach's alphas value ($\alpha = 0.85$) was reported (32).

Data were analyzed using descriptive and analytical statistics, such as linear regression analysis and Pearson's correlation coefficient test in SPSS software (ver. 16, Chicago, IL, USA).

**Results**

Out of 222 questionnaires distributed in the present study, 193 questionnaires were fully completed and 29 questionnaires were excluded from the study due to non-answering and answering less than 10% of the questions. Data analysis showed that out of 193 participants, 110 subjects (57%) were women. Majority of the studied participants aged between 31–35 years old ($n = 66, 34.2\%$), 88 subjects (45.6%) had a working experience of 1–5 years, and 146 subjects (75.6%) had a bachelor's degree.

Mean score ± SD of nurses' spiritual intelligence ($83.45 \pm 14.61$) was higher than mean and optimal level and mean score of spirituality, and spiritual care ($61.45 \pm 12.30$) was at moderate to relatively high level. (Table 1)

The results of Kolmogorov-Smirnov test showed normal distribution of the data. The results of Pearson's correlation coefficient test also showed a strong and significant positive relationship between spiritual intelligence and its dimensions with spirituality and spiritual care ($r = 0.764$ and $p < 0.001$). (Table 2)

According to the results of regression analysis, among the four dimensions of spiritual intelligence, spiritual consciousness ($\beta = 0.471$) was the most important predictor of attitudes toward spirituality and spiritual care. Also, creation of personal meaning and conscious development were not significant predictors of attitudes toward spirituality and spiritual care. (Table 3)

**Discussion**

Findings of the present study showed that mean score of nurses' spiritual intelligence was above the average and based on the scoring of the questionnaire, a score higher than the average was considered as optimal spiritual intelligence. In this regard, mean nurses' spiritual intelligence score has been higher in the studies by Salmani, Sabzianpour, BarkhordariSharifabad, Sunaryo and Kaur than the average and optimal level, which is consistent with the present study (23, 30, 33–35). However, in this regard, Abdolrazaghnejad et al., and Bahrami et al., showed that mean score of nurses' spiritual intelligence was lower than the average (21, 36), which may be different from the present study due to research environment. Findings of the present study also showed a moderate score for nurse's attitude towards spirituality and spiritual care, which is consistent with the study by Abdollahyar et al and Rezapour-Mirsaleh et al (1, 37). Results of the study done by Kaddourah in Saudi Arabia as well as those performed by Atarhim and Herlianita in Malaysia and Indonesia, respectively, showed that nurses had moderate to
high attitude towards spirituality and spiritual care (7, 38, 39), which are consistent with the present study. It seems that similar level of attitude toward spirituality and spiritual care in the present study and those studies can be due to cultural and religious values among nurses in countries. Of course, it should be noted that the attitude of our samples was similar to other studies’ samples with different religions for example, Reig-Ferrer reported a satisfactory mean score on nurses’ self-reported spirituality in Spanish Nurses(40). Also in this regard, the results of the study by Egan et al show that many New Zealand nurses consider spirituality and spiritual care to be important dimensions of nursing practice(41). According to the international consensus, the concept of spirituality is "a dynamic and inherent thing", in fact Spirituality is defined as a constant search for the meaning and purpose of life, a person's search for sanctities, superiority, close connection with oneself, others and the environment, a deep understanding of the value of life, and a personal belief system(16). In fact, Spirituality is not just for people who are religious, and that a person with no particular religious’ faith may feel "one with the world" through nature or follow humanist or secular belief systems. Spiritual care is situated in holistic care in nursing and nurses in religious and non-religious contexts attend to patients’ spiritual care needs and believe they are important(11). Actually Spiritual care as a multidimensional concept is different from religiosity, but they are not mutually exclusive in religious contexts. The concept of Spirituality can related with religious beliefs and spiritual care includes religious (praying and praying with the patient, talking to the patient about God, clarifying the relationship between the patient and God, using religious texts) and non-religious care (communication skills, counseling, emotional and active listening, encouraging the patient to express feelings, encouraging positive thinking, empathetic communication)(1).

The results of this study showed a significant, positive relationship between spiritual intelligence and its four dimensions with spirituality and spiritual care of nurses. Comparing the standardized coefficient of regression analysis, among the four dimensions of spiritual intelligence, there was a stronger relationship between transcendental awareness (0.471) and critical existential thinking (0.371) with nurses' attitude towards spirituality and spiritual care. Unfortunately, according to literature review, there has been no study on the exact relationship between these two variables so far. However, in this regard, in the study of Bar-Sela et al, the lack of spiritual self-awareness is introduced as one of the most important obstacles in providing spiritual care by nurses(42). Also Pinto et al emphasized that spiritual self-awareness is crucial to the provision of spiritual care and strengthening spiritual intelligence is an approach to improve spiritual care and holistic practice. In addition to Riahi et al, showed that spiritual intelligence training has a positive and significant effect on spiritual care of nurses in intensive care units (ICUs) and concluded spiritual intelligence can be considered a factor in spiritual care because it can improve self-awareness in a person(43) which are consistent with the present study. Also Emamqholian found a positive and significant relationship between spiritual intelligence and competence in Providing Spiritual care of nursing students(25). Sabzianpour and Sunaryo also showed a positive and significant relationship between spiritual intelligence and quality of nursing care, Caring Behavior (23, 34). In a study, Salawati Ghasemi demonstrated a significant relationship between spiritual intelligence and communication skills of nurses(22). In their study, Salmani, Arsang-Jang and Haryono found a positive and significant relationship between spiritual intelligence and nurses' support for patients and also between spiritual
intelligence, ethical decision making of nurses and nurses’ organisational commitment. (20, 24, 33). In this regard, Pinto et al., (2020) stated that nurses with higher spiritual intelligence are less arrogant, behave more wisely, and have more compassion and empathy for patients. They communicate more effectively with patients and colleagues, and provide high quality of caring (16). Considering that the items of the SSCRS also include concepts, such as communication, ethics, and patient care and support, these studies indirectly confirm the results of the present study. Spiritual care is a unique aspect of care and addressing spiritual needs of patients is regarded as an essential component of holistic nursing care. The results of the present study confirmed that spirituality has been accepted by nurses and they consider spirituality as an integral part of the nursing profession. Also, high level of spiritual intelligence among nurses is one of strengths and advantages regarding attitude towards nursing care, including spiritual care.

**Conclusions**

The results of this study showed a significant, positive relationship between spiritual intelligence and attitudes toward spirituality and spiritual care. In particular, this study highlights the role of spiritual intelligence on spirituality and spiritual care. The growing evidence on spiritual intelligence brings new insight into the importance of spiritual self-awareness and existential awareness for the development of spiritual care by nurses. Spiritual intelligence as a cognitive concept can be taught and learned. In this regard, it is necessary to include the training of spiritual intelligence in the nursing curriculum and fostering spiritual awareness and existential awareness through methods such as case studies and workshops should be considered as in-service nursing education.

One of the limitations of this research is the non-random sampling, and therefore one should be careful in generalizing the results. Therefore, it is suggested to conduct similar research with random sampling method and in countries with more diverse cultural backgrounds.

**Abbreviations**

SISRI  
spiritual intelligence self-report inventory  
SSCRS  
spirituality and spiritual care rating scale.

**Declarations**

*Ethics approval and consent to participate:* This study was performed in line with the principles of the Declaration of Helsinki. Approval was granted by the Ethics Committee of Falavarjan Islamic Azad University (IR.IAU.FALA.REC.1399.040). Informed consent was obtained from all individual participants included in the study.
Consent for publication: Not applicable.

Availability of data and materials:

Data and materials are confidential but they will be available upon reasonable request from the corresponding author.

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Authors' contributions: All authors contributed to the study conception and design. Material preparation, data collection and analysis were performed by K. Abbasi, the first draft of the manuscript was written by A. Alavi and all authors commented on previous versions of the manuscript. All authors read and approved the final manuscript.

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References


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Tables

Table (1): Average total score and dimensions of spiritual intelligence and attitude towards spirituality and spiritual care

<table>
<thead>
<tr>
<th></th>
<th>Spirituality and spiritual care</th>
<th>Spiritual Intelligence</th>
<th>Dimensions of spiritual intelligence</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>Conscious State Expansion</td>
</tr>
<tr>
<td>Mean</td>
<td>61.45</td>
<td>83.45</td>
<td>16.11</td>
</tr>
<tr>
<td>SD</td>
<td>12.30</td>
<td>14.61</td>
<td>3.91</td>
</tr>
<tr>
<td>Maximum</td>
<td>82.00</td>
<td>113.00</td>
<td>25.00</td>
</tr>
<tr>
<td>Minimum</td>
<td>30.00</td>
<td>60.00</td>
<td>9.00</td>
</tr>
</tbody>
</table>

Table (2): Correlation coefficient between spiritual intelligence and its dimensions with attitude towards spirituality and spiritual care
### Table (3): Regression coefficients of the relationship between the dimensions of spiritual intelligence and attitudes toward spirituality and spiritual care

<table>
<thead>
<tr>
<th>Dimensions of spiritual intelligence</th>
<th>B</th>
<th>SE</th>
<th>Beta (β)</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Critical Existential Thinking</td>
<td>0.837</td>
<td>0.182</td>
<td>0.371</td>
<td>0&lt;001</td>
</tr>
<tr>
<td>Personal Meaning Production</td>
<td>-0.256</td>
<td>0.222</td>
<td>-0.075</td>
<td>0.249</td>
</tr>
<tr>
<td>Transcendental Awareness</td>
<td>1.507</td>
<td>0.206</td>
<td>0.471</td>
<td>0&lt;001</td>
</tr>
<tr>
<td>Conscious State Expansion</td>
<td>0.333</td>
<td>0.225</td>
<td>0.106</td>
<td>0.142</td>
</tr>
</tbody>
</table>

ADJR square = 0.629  
R square = 0.637  
R = 0.798